



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,136	02/14/2002	Ring-Ling Chien	100/13010	8859
21569	7590	01/25/2005	EXAMINER	
CALIPER LIFE SCIENCES, INC. 605 FAIRCHILD DRIVE MOUNTAIN VIEW, CA 94043-2234			ALEXANDER, LYLE	
			ART UNIT	PAPER NUMBER
			1743	

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/076,136

Applicant(s)

CHIEN ET AL.

Examiner

Lyle A Alexander

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
4a) Of the above claim(s) 22-31 and 37 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-3, 5-21 and 32-36 is/are rejected.
7) ☒ Claim(s) 4 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/13/04.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-3,5-6 and 32-36 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wilding et al.(USP 5,928,880).

Wilding et al. teach a microfluidic system in figure 6a comprising a sample application port(56) and associated channels that has been read on the claimed "first channel segment". A detection region(117) that is orthogonal to the application port has been read on the claimed "detection channel". Column 11 lines 40+ teach the results are viewed through a transparent cover "visually or by machine". The taught transparent cover has been read on the claimed second substrate. The taught machine for viewing optical results has been read on the claimed "detection system

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 7-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilding et al.

See Wilding et al. Supra.

Wilding et al. are silent to the claimed detection channel having a cross section area about 0.1 and 5 times the cross sectional area of at least one of the first and

Art Unit: 1743

second channels. Wilding et al. is also silent to the dimensions of the channels and volumes.

The court decided In re Boesch (205 USPQ 215) that optimization of a result effective variable is ordinarily within the skill of the art. A result effective variable is one that has predictable and well-known results. The relative dimension of channels and of a device area a result effective variable that have the well known and the expected results of altering fluid flow rates through the device.

The court decided In re Yount (80 USPQ 141) "... mere size ordinarily is not a matter of invention...". Additionally, the court also reiterated Yount in In re Rose (105 USPQ 237) again stating "... the size of the article under consideration is not ordinarily a matter of invention ...".

It would have been within the skill of the art to modify Wilding et al. and have the detection channel(117) between 0.1 and 5 times the cross sectional area of the first channel and the length of the detection channel from about 10 microns to 1mm, as optimization of a result effective variable and also in view of Yount and Rose above.

Allowable Subject Matter

Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 11/5/04 have been fully considered but they are not persuasive.

Art Unit: 1743

Applicants' amendments and terminal disclaimers have overcome the 35 USC 112 rejections and Obviousness Type Double Patenting rejections.

Applicants' remarks were convincing in overcoming the rejection over Parce (USP 6,267,858).

Applicants' traverse the 35 USC 102(b) rejection over Wilding (USP 5,928,880) on the basis no detection channel is taught that is substantially orthogonal to the planar body of the microfluidic device. The Office does not agree and directs Applicants' to figure 6A that clearly shows detection region(117) orthogonal to the planes created by the vertical sides of the device(10) and fully meet the instant claims.

Applicants' traverse the 35 USC 103 rejection on the basis Wilding does not anticipate the claims under 35 USC 102(b) and therefore cannot sustain an obviousness rejection. The Office maintains both rejections are proper for the above reasons.

With respect to the 12/13/04 IDS, the Office believes all three of the cited references teach the claimed concept of multiple channels connected to each other and a detection chamber that is orthogonal to a plane. Upon further appeal these references may be applied as prior art. Presently, they are viewed as pertinent, but would be duplicative of the teachings of Wilding as applied to the instant claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 1743

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lyle A Alexander whose telephone number is 571-272-1254. The examiner can normally be reached on Monday, Wednesday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lyle A Alexander
Primary Examiner
Art Unit 1743

